

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A data processing apparatus for performing rights processing of content data encrypted with content key data based on usage control policy data, and for decrypting the encrypted content key data, said the data processing apparatus comprising within a tamper-resistant circuit module:

a first bus;

an arithmetic processing circuit connected to said the first bus, for performing the rights processing of the content data based on the usage control policy data;

a storage circuit connected to said the first bus;

a second bus;

a first interface circuit interposed between said the first bus and said the second bus;

an encryption processing circuit connected to said the second bus, for decrypting the content key data;

a hash-value generating circuit that generates hash values of the content data,
the content key data, and the usage control policy data;

a public key encryption module circuit that creates signature data using the hash
values and verifies the integrity of the signature data performs authentication, creates

~~signature data, encrypts and decrypts data for transferring, and shares a session key data obtained by the authentication;~~

a common key encryption module circuit that performs mutual authentication and encrypts and decrypts data by using the session key data;

an external bus interface circuit connected to said the second bus; and

a usage monitor;

wherein said the arithmetic processing circuit determines at least one of a purchase mode and a usage mode of the content data based on a handling policy indicated by the usage control policy data, and creates log data which includes a unique identifier of the content data, discount information, and tracing information and indicates result of the determined mode; and the arithmetic processing circuit creates usage control status data in accordance with the determined purchase mode, and controls the use of the content data based on the usage control status data;

said the usage control status data comprising a content identification for said the content data, the purchase mode, an identification for said the tamper-resistant circuit module, and a user identification for a user who has purchased said the content data;

wherein the usage monitor monitors said the usage control policy data and said the usage control status data to make sure that said the content data is purchased and used as restricted by said the usage control policy data and said the usage control status data; and

wherein the purchase mode is determined from one or more purchase mode options, and each purchase mode option has a different level of restriction imposed on a playback operation.

2. (Currently Amended) A data processing apparatus according to claim 1, further comprising a second interface circuit within said the tamper-resistant circuit module, wherein said the first bus comprises a third bus connected to said the arithmetic processing circuit and said the storage circuit, and a fourth bus connected to said the first interface circuit, and said the second interface circuit is interposed between said the third bus and said the fourth bus.

3. (Currently Amended) A data processing apparatus according to claim 2, further comprising within said the tamper-resistant circuit module:

a fifth bus;
a third interface circuit connected to said the fifth bus, for performing communication with a data processing circuit having an authentication function which is loaded on one of a recording medium and an integrated circuit card; and
a fourth interface circuit interposed between said the fourth bus and said the fifth bus.

4. (Canceled)

5. (Currently Amended) A data processing apparatus according to claim 4, wherein:

said the storage circuit stores private key data of said the data processing apparatus and public key data of a second data processing apparatus;

~~said the~~ public-key encryption circuit verifies the integrity of ~~signature data, which verifies the integrity of the content data, the content key data, and the usage control policy data, by using the public key data, and when recording the content data, the content key data, and the usage control policy data on a recording medium or when sending the content data, the content key data, and the usage control policy data to said the second data processing apparatus, said the~~ public-key encryption circuit creates ~~the~~ signature data, which verifies the integrity of the content data, the content key data, and the usage control policy data, by using the private key data; and

~~said the~~ common-key encryption circuit decrypts the content key data, and when sending the content data, the content key data, and the usage control policy data to ~~said the second data processing apparatus online, said the~~ common-key encryption circuit encrypts and decrypts the content data, the content key data, and the usage control policy data by using session key data obtained by performing mutual authentication with ~~said the~~ second data processing apparatus.

6. (Canceled)

7. (Currently Amended) A data processing apparatus according to claim 1, further comprising a random-number generating circuit within ~~said the~~ tamper-resistant circuit module, ~~said the~~ random-number generating circuit being connected to ~~said the~~ second bus, for generating a random number for performing mutual authentication with a second data processing apparatus when sending the content data, the content key

data, and the usage control policy data to said the second data processing apparatus online.

8. (Currently Amended) A data processing apparatus according to claim 1, wherein said the external bus interface circuit is connected to an external storage circuit for storing at least one of the content data, the content key data, and the usage control policy data.

9. (Currently Amended) A data processing apparatus according to claim 8, further comprising a storage-circuit control circuit for controlling access to said the storage circuit and access to said the external storage circuit via said the external bus interface circuit in accordance with a command from said the arithmetic processing circuit.

10. (Currently Amended) A data processing apparatus according to claim 1, wherein said the external bus interface circuit is connected to a host arithmetic processing apparatus on which said the data processing apparatus is loaded.

11. (Currently Amended) A data processing apparatus according to claim 8, further comprising a storage management circuit for managing an address space of said the storage circuit and an address space of said the external storage circuit.

12-14. (Canceled)

15. (Currently Amended) A data processing apparatus according to claim 4, wherein, when the content key data is encrypted with license key data having an effective period, said the storage circuit stores the license key data, said the data processing apparatus further comprises a real time clock for generating real time, said the arithmetic processing circuit reads the effective license key data from said the storage circuit based on the real time indicated by said the real time clock, and said the common-key encryption circuit decrypts the content key data by using the read license key data.

16. (Currently Amended) A data processing apparatus according to claim 1, wherein said the storage circuit writes and erases data in units of blocks, and said the data processing apparatus comprises within said the tamper-resistant circuit module, a write-lock control circuit for controlling the writing and erasing of the data into and from said the storage circuit in units of blocks under the control of said the arithmetic processing circuit.

17. (Currently Amended) A data processing apparatus for performing rights processing of content data encrypted with content key data based on usage control policy data, and for decrypting the encrypted content key data, said the data processing apparatus comprising within a tamper-resistant circuit module:

a first bus;

an arithmetic processing circuit connected to said the first bus, for performing the rights processing of the content data based on the usage control policy data;

a storage circuit connected to said the first bus;

a second bus;

an interface circuit interposed between said the first bus and said the second bus;

an encryption processing circuit connected to said the second bus, for decrypting the content key data;

a hash-value generating circuit that generates hash values of the content data, the content key data, and the usage control policy data;

a public key encryption module circuit that creates signature data using the hash values and verifies the integrity of the signature data performs authentication, creates signature data, encrypts and decrypts data for transferring, and shares a session key data obtained by the authentication;

a common key encryption module circuit that performs mutual authentication and encrypts and decrypts data by using the session key data;

an external bus interface circuit connected to said the second bus; and

a usage monitor;

wherein, upon receiving an interrupt from an external circuit via said the external bus interface circuit, said the arithmetic processing circuit becomes a slave for said the external circuit so as to perform processing designated by the interrupt, and reports a result of the processing to said the external circuit;

wherein said the arithmetic processing circuit determines at least one of a purchase mode and a usage mode of the content data based on a handling policy indicated by the usage control policy data, and creates log data which includes a unique identifier of the content data, discount information, and tracing information and indicates a result of the determined mode; and the arithmetic processing circuit creates usage control status data in accordance with the determined purchase mode, and controls the use of the content data based on the usage control status data;

said the usage control status data comprising a content identification for said the content data, the purchase mode, an identification for said the tamper-resistant circuit module, and a user identification for a user who has purchased said the content data;

wherein the usage monitor monitors said the usage control policy data and said the usage control status data to make sure that said the content data is purchased and used as restricted by said the usage control policy data and said the usage control status data; and

wherein the purchase mode is determined from one or more purchase mode options, and each purchase mode option has a different level of restriction imposed on a playback operation.

18. (Currently Amended) A data processing apparatus according to claim 17, wherein said the arithmetic processing circuit reports the result of the processing by outputting an interrupt to said the external circuit.

19. (Currently Amended) A data processing apparatus according to claim 17, wherein said the external bus interface comprises a common memory for said the arithmetic processing circuit and said the external circuit, and said the arithmetic processing circuit writes the result of the processing into said the common memory, and said the external circuit obtains the result of the processing by polling.

20. (Currently Amended) A data processing apparatus according to claim 19, wherein said the external bus interface comprises:

a first status register indicating an execution status of the processing requested from said the external circuit in said the arithmetic processing circuit, and including a flag set by said the arithmetic processing circuit and read by said the external circuit;

a second status register indicating whether said the external circuit has requested said the arithmetic processing circuit to perform processing, and including a flag set by said the external circuit and read by said the arithmetic processing circuit; and

said the common memory for storing a result of the processing.

21. (Currently Amended) A data processing apparatus according to claim 18, wherein said the storage circuit stores an interrupt program describing the processing designated by the interrupt, and said the arithmetic processing circuit performs the processing by executing the interrupt program read from said the storage circuit.

22. (Currently Amended) A data processing apparatus according to claim 21, wherein said the storage circuit stores a plurality of said the interrupt programs, and a plurality of sub-routines to be read when executing the interrupt program, and said the arithmetic processing circuit appropriately reads and executes the sub-routines from said the storage circuit when executing the interrupt program read from said the storage circuit.

23-56. (Cancelled)

57. (Currently Amended) A data processing method of performing rights processing for content data encrypted with content key data based on usage control policy data, and of decrypting the encrypted content key data, said the data processing method comprising the steps of:

determining at least one of a purchase mode and a usage mode of the content data based on a handling policy indicated by the usage control policy data;

creating log data which includes a unique identifier of the content data, discount information, and tracing information and indicates a result of the determined purchase mode;

creating usage control status data in accordance with the determined purchase mode; said the usage control status data comprising a content identification for said the content data, the purchase mode, an identification for a tamper-resistant circuit module, and a user identification for a user who has purchased said the content data;

monitoring said the usage control policy data and said the usage control status data to make sure that said the content data is purchased and used as restricted by said the usage control policy data and said the usage control status data;

controlling the use of the content data based on the usage control status data;

recording the content data, for which the purchase mode is determined, on a recording medium; [[and]]

generating hash values of the content data, the content key data, and the usage control policy data

performing authentication;

creating a signature data using the hash values;

verifying the integrity of the signature data;

sharing session key data obtained by the authentication; and

encrypting the content key data and the usage control status data by using the session key data;

wherein the purchase mode is determined from one or more purchase mode options, and each purchase mode option has a different level of restriction imposed on a playback operation.